

Shorter and broader than the following species, with the shoulder-angles of the ribs nearer the suture.

*Scala sagamiensis*, n. sp.

This species is closely related to *S. kamakurana*, from which it differs in the following respects: The shell is more slender, sutures deeper. The spiral cords are somewhat stronger, eight or nine on the penultimate, thirteen on the last whorl, the intervals below the suture and above the spirals being smooth. Ribs rather narrow and delicate, with occasional higher ones interposed at irregular intervals. The smaller ribs are either unarmed or but weakly angular above, but the larger ones have distinct points above, further from the suture than in *S. kamakurana*. There are fifteen ribs on the last whorl. The aperture is very shortly-oval. Peristome continuous, the outer varix bearing a point above; columellar margin dilated at the base; parietal callus spreading forward.

Length 11, diam. 4 mm.; whorls remaining 8, the first one smooth, the apical whorls wanting.

Kamakura, Sagami. Type No. 104696, A. N. S. P., collected by F. Stearns.

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NEW CUBAN UROCOPTIDAE I

BY PROFESSOR CARLOS DE LA TORRE.

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The species described below were collected by the writer in the northeastern angle of Santa Clara Province, from Remedios to the Camaguay boundary, chiefly in the Sierras near the northern coast, which may be reached from the towns of Remedios, Yaguajay and Mayajigua.

Being *Gongylostomæ*, the species are of the west Cuban type, but they have a particular facies of their own. The prevalence of forms belonging to the section *Esochara* is an interesting feature of this fauna.

Illustrations of all the following species will accompany the concluding paper.

UROCOPTIS (GONGYLOSTOMA) VILLARENSIS, n. sp.

Shell rimate, swollen-cylindric, the upper third tapering to a nar-

row truncation ; rather thin ; streaked with white on a pale brown ground. Surface silky, closely subarcuate-striate ; suture simple. Whorls 8-9 scarcely convex, the last shortly free in front with a cord-like keel around the base. Aperture slightly oblique, subcircular, slightly narrowed laterally, light brown within ; columellar fold visible deep within ; peristome nearly white, expanded and reflexed throughout, but narrow in the peripheral region. Axis encircled by two subequal compressed lamellæ, the lower denticulate in the upper whorls, and both rapidly enlarged in the antepenult and penultimate whorls, smaller in last whorl.

Long. 22, diam. 6.2, apert. 5 mm. Whorls 9.

Long. 19, diam. 6, apert. 4.8 mm. Whorls 8.

Long. 20, diam. 6, apert. 5. Whorls 8.5.

Central Cuba ; El Purio, near Calabazar de Sagua and El Capiro, near Santa Clara, Province of Santa Clara. A locality also called "Las Villas."

This species obviously belongs to the Subgenus *Gongylostoma*. It approaches *U. obliqua* but differs by its larger size, simple suture and by the wider lamellæ of the axis, etc.

#### UROCOPTIS (GONGYLOSTOMA) PROTEUS, n. sp.

Shell rimate, cylindric, somewhat swollen, the upper third tapering to a rather narrow truncation ; thin ; brown, marbled with white flames ; surface obliquely rib-striate ; suture sub-crenulate. Whorls 9-11, a little convex, the last purplish, shortly free in front, with an obsolete basal keel. Aperture slightly oblique, subcircular, brown within ; peristome, columella and upper wall white ; peristome expanded and reflexed. Axis encircled by three compressed lamellæ, the lowest denticulate above the middle, moderately expanded in the three last whorls, the others disappearing in the penultimate whorl.

Long. 22, diam. 6, aperture 4.2 mm. Whorls 11.

Long. 17, diam. 5.2, aperture 3.2 mm. Whorls 9.

Long. 20, diam. 6, aperture 4 mm. Whorls 10.

Central Cuba, Sierra de Bamburanao near Seibabo de Yaguajay in the Province of Santa Clara.

Similar to *U. villarensis* but its whorls are more convex with riblets separated by wide intervals, suture subcrenulate and the axis encircled by three instead of two compressed lamellæ.

*U. PROTEUS CASTANEA*, n. var.

Differs from the type in being of uniform brown, with last whorl purplish. The suture is more distinctly crenulate.

Long. 18, diam. 5.5, ap. 3.3 mm. Whorls 9.

Long. 15, diam. 4.8, ap. 3.2 mm. Whorls 8.5.

Long. 16, diam. 5, ap. 3.3 mm. Whorls 9.

Central Cuba; Colonia Santa Cruz between Seibabo and Yaguajay in the province of Santa Clara.

Differs from *U. remediensis* by the somewhat swollen shell, rapidly tapering to a broader truncation, more solid, and chestnut-colored without whitish spots; rib striate and more crenulate, etc. The axial lamellæ are also somewhat differently disposed.

*U. PROTEUS ROBUSTAXIS*, n. var.

Shell smaller, cylindric, somewhat swollen, rapidly tapering to a very narrow truncation; somewhat solid; pale chestnut with obsolete whitish clouds; oblique, regularly rib striate; suture not crenulate. Whorls 9-10.5, a little convex, the last one more free. Aperture as in *U. proteus*, typical. Axis tri-lamellate, rather strong and stout in the last whorls.

Differs from the variety *castanea* by its simple suture, more projecting last whorl, stouter axis, and by its color pattern of a few white and chestnut spots on pale brown ground. The last whorl is purple, as in the type.

Long. 18, diam. 4.8, ap. 3.8 mm. Whorls 10.5.

Long. 17, diam. 5, ap. 4 mm. Whorls 9.

Long. 17, diam. 4.7, ap. 3.5 mm. Whorls 10.

Central Cuba; Sierra de Santa Rosa between Remedios and Seibabo de Yaguajay in the province of Santa Clara.

*UROCOPTIS (GONGYLOSTOMA) REMEDIENSIS*, n. sp.

Shell rimate, cylindric, the upper third (or half) tapering to the truncation; thin; brown with opaque whitish flames. Surface obliquely weakly striate; suture slightly crenulate. Whorls 8-10, a little convex, the last purplish, shortly free in front with a cord-like keel around the base. Aperture slightly oblique, ovate rounded; dark brown within, but the peristome, columella and upper wall nearly white. Peristome expanded and reflexed throughout. Axis encircled by three compressed lamellæ, the lower denticulate in the upper and median whorls.

Long. 16, diam. 4, aper. 3.3 mm. Whorls 9.5.

Long. 14, diam. 3.2, aper. 3 mm. Whorls 8.

Long. 15, diam. 4, aper. 3.2 mm. Whorls 9.

Var. *a*. Somewhat larger and swollen. Whorls 9–11.

Long. 20, diam. 5.2, aper. 4 mm. Whorls 11.

Var. *b*. Chestnut-brown, spotted with white above sutures.

Long. 18, diam. 5, aper. 3.6 mm. Whorls 10.

Central Cuba; Near Remedios; var. "*a*" from El Palenque de Jaguayabon and Cerro de Guajabana; var. "*b*" from near Jaguayabon, all in the Province of Santa Clara.

The complete shell has 17 to 18 whorls with a total length of 20 to 22 mm. The rejected or broken-off portion of the spire is attenuate, delicately striate and with a smooth translucent and bulbous tip.

UROCOPTIS (GONGYLOSTOMA) MAYAJIGUENSIS, n. sp.

Shell rimate, cylindric, the upper half tapering to a narrow truncation; thin; reddish chestnut profusely marbled with white, sometimes in zigzag pattern. Surface densely, obliquely striate; slightly angulate along the suture. Whorls 10 to 11, slightly convex, the last shortly free in front, with a basal, cord-like keel. Aperture slightly oblique, rounded-ovate, brown inside; peristome pale brown, expanded and reflexed. Axis encircled by two compressed lamellæ, the lower being larger in the later and slightly denticulate in the upper whorls.

Long. 23, diam. 5.2, apert. 4.2 mm. Whorls 12.

Long. 19, diam. 4.8, apert. 3.6 mm. Whorls 10.5.

Long. 20, diam. 5, apert. 4 mm. Whorls 11.

Var. "*a*." Smaller, more swollen, whorls almost flat.

Long. 18, diam. 5.2, apert. 4.2. Whorls 9.

Central Cuba; Las Llanadas, Sierra de Matahambre; var. "*a*" from Veredas de Aguada y del Alunado, in the district of Mayajigua, province of Santa Clara.

Differs from *U. villarensis* by its more slender and tapering spire, brown color, suture, number of whorls, etc., and from *U. remediensis* by its bi-lamellate internal axis, etc.

The opaque white pattern is confined to the striae, the intervals being smooth.

U. MAYAJIGUENSIS FULVA, n. var.

Shell smaller, cylindric, more solid; light brown with a golden

gleam; striation coarser. Whorls 9 to 10, somewhat convex. Axis encircled by two compressed lamellæ, the lower more expanded than in the type.

Length 17, diam. 4.8, aperture, 3.5. Whorls 10.

Length 16, diam. 4, aperture 3.2. Whorls 9.

Length 16, diam. 4.5, aperture 3.5. Whorls 9.

Central Cuba; Coqueron del Jatibonico at the boundary between the Provinces of Santa Clara and Camaguay.

Some specimens show faint traces of white maculations.

#### UROCOPTIS (GONGYLOSTOMA) CIONISCUS, n. sp.

Shell rimate, cylindric, the upper fourth tapering to a rather wide truncation; somewhat solid; ashen with occasional brown streaks; sculptured with narrow oblique riblets separated by much wider intervals; suture simple. Whorls 9 to 11, somewhat convex, the last shortly free with an obsolete cord-like keel around the base. Aperture sub-circular, pale brown within, the peristome shining white, expanded and reflexed; columella with a distinct fold deep within. Axis bearing two lamellæ, the lower one somewhat the larger, denticulate above the middle and extending to the last whorl, the upper disappearing in the penultimate whorl.

Long. 26, diam. 5, apert. 5.2. Whorls 11.

Long. 24, diam. 5.2, apert. 5.3. Whorls 9.

Long. 25, diam. 5.2, apert. 5.3. Whorls 10.5.

Central Cuba; Cueva del Muerto, Sierra de Meneses in the district of Yaguajay, Province of Santa Clara.

Differs from *U. vignalensis* by its more cylindric and less tapering shell, the brown streaks, absence of granules along the sutures, and the axis encircled by two (not three) compressed and wider lamellæ. (Described from dead specimens).

#### UROCOPTIS (GONGYLOSTOMA) TRANSITORIA, n. sp.

Shell rimate, cylindric, the upper half or third tapering to a narrow truncation; thin; corneous-brown, with occasional stripes of a deeper brown irregularly spread. Surface lusterless, sculptured with narrow riblets separated by wider intervals. Whorls 9.5 to 11, a little convex, the last slightly darker and free in front, rounded below with an obsolete cord around the base. Aperture sub-circular, a little narrower above, brown within; columella, upper wall and

upper half of peristome white. Peristome well expanded and reflexed. Axis encircled by three lamellæ, the lowest denticulate above the penultimate whorl, moderately enlarged in the middle and extending to the last whorl. The upper lamella, compressed at first, becomes cord-like and disappears in the penultimate whorl; the intermediate lamella smallest and thread-like above.

Long. 24, diam. 5.8, apert. diam. 5.2 mm. Whorls 11.

Long. 20, diam. 5, apert. diam. 4.6 mm. Whorls 9.5.

Long. 22, diam. 5, apert. diam. 5 mm. Whorls 10.5.

Central Cuba; Sierra de Matabambre at Las Llanadas, in the district of Mayajigua, province of Santa Clara.

This species is intermediate between *U. cioniscus* and *U. fallax*, but is easily distinguished by its shape, color, and chiefly by the columellar axis.

*UROCOPTIS (GONGYLOSTOMA) FALLAX*, n. sp.

Shell rimate, cylindric, the upper third tapering to a rather wide truncation; thin; dull yellowish with occasional irregularly spaced brown streaks. Surface lusterless, sculptured with narrow arcuate riblets separated by much wider intervals. Whorls 9-11, convex, the last purplish brown, shortly free in front, rounded below, with an almost obsolete cord around the base. Aperture nearly round, brown within; peristome, upper wall and columella white. Peristome broadly expanded and reflexed. Axis stout and encircled by three sub-equal compressed lamellæ, the lowest largest in penultimate whorl and smallest in the upper whorls where the upper lamellæ dominate; lower lamella denticulate above.

Long. 25, diam. 6.2, apert. diam. 6. Whorls 11.

Long. 20, diam. 6, apert. diam. 5.6. Whorls 9.

Long. 23, diam. 6, apert. diam. 6. Whorls 10.5.

Central Cuba; Vereda de el Alunado, through the Sierra de Jatibonico in the district of Mayajigua, Prov. of Santa Clara.

Superficially resembling *U. intermedia* but differing chiefly in its more widely spaced riblets and in its axial structure. From *U. transitoria* it differs by its stouter form, sculpture and columellar axis.

*UROCOPTIS (GONGYLOSTOMA) DILATATA*, n. sp.

Shell rimate, cylindric, slightly swollen, the upper third tapering

to the truncation; thin; grayish white, becoming slightly purplish brown on the last whorl. Surface lusterless, sculptured with narrow oblique riblets separated by much wider spaces; whorls 8-9, somewhat convex, the last rounded below with an obsolete cord around the base, very shortly free in front. Aperture large, subcircular or somewhat transversely oblong, a trifle brownish within, the peristome shining white, broadly expanded and reflexed; columella with a distinct fold. Axis encircled by two principal compressed lamellæ, the lower one largest, denticulate above the middle and extending to the last whorl, the upper disappearing to the penultimate whorl; in the median whorls a cord is sometimes interposed, particularly in the ante-penultimate whorl.

Long. 23, diam. 7, aperture diam. 7. Whorls 9.

Long. 20, diam. 6.5, aperture diam. 5.8. Whorls 8.

Long. 22, diam. 6.8, aperture diam. 6. Whorls 8.

Central Cuba; Sierra de Boquerón del Jatibonico at the boundary between Santa Clara and Camaguay Provinces.

The complete shell contains 16-18 whorls with a total length of 24-28 mm. The rejected portion is rib-striate with smooth and somewhat bulbous lip. Differs from *U. fallax* by its color, more enlarged aperture and by the columellar axis.

(To be continued.)

#### NOTES.

NEW COLOR VARIETIES OF *HELIX* (*DENTELLARIA*) *BADIA* Fér.—There is in my collection a series of *Helix badia* Fér., habitat unknown, which exhibit considerable variation from the type in their coloring. To call attention to their character I may be justified in giving names to these extreme forms.

As Dr. Pilsbry points out in the Manual (Vol. V, p. 86) the type of *badia* is "uniform dark chestnut colored." Between the typical form and the variety I first describe is a transition stage which is represented by an example before me.

Var. *roseolabrum*, n. var. Differs from the type in being much lighter in color and having a rose-colored peristome. Type in my own collection.

Var. *unicolor*, n. var. Distinguished by the light-colored shell and pure white peristome and teeth. In the example before me the umbilicus is not completely covered. Type in my own collection. This form should not be confused with Pilsbry's var. *guadeloupensis*. The latter is chestnut-colored and carinated at the periphery.

MAXWELL SMITH.